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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,692	02/05/2007	Yoshihiro Yano	U 016334-5	6578
140 7590 06/19/2009 LADAS & PARRY LLP 26 WEST 61ST STREET NEW YORK, NY 10023				
EXAMINER				
SHAW, PETER C				
ART UNIT		PAPER NUMBER		
2458				
MAIL DATE		DELIVERY MODE		
06/19/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/582,692

**Applicant(s)**

YANO ET AL.

**Examiner**

PETER SHAW

**Art Unit**

2458

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 05 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 2/5/2007, 6/13/2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-15 are pending in this action.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

3. The information disclosure statements (IDS) submitted on 6/13/2006 and 2/5/2007 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements have been considered by the examiner.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A program is considered non-statutory subject matter unless explicitly stored on a computer readable storage medium. An alternative possibility will not suffice. Accordingly, this claim is rejected as non-statutory.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 5-8, 12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vange et al. (US PG PUB No. 2002/0004816) [hereinafter "Vange"] in view of Iwami et al. (US PG PUB No. 2004/0054698) [hereinafter "Iwami"] in further view of Campbell et al. (US PG PUB No. 2004/0049636) hereinafter "Campbell"].

As per claim 1, Vange teaches A data storage system using network, having functions of storing data sent from a terminal device via a network ([0012], line 5, clients) and returning saved data via a network in accordance with a request from a terminal device ([0012], line 3, request for data), said data storage system comprising:

a removable storage medium (11, 21), installable to a terminal device (10, 20) ([0026], line 5, personal computers have removable storage);

storing means (12, 22), built into the terminal device ([0026], line 5, personal computers have built in hard drives); and

a data storage device (100), connected to the terminal device via a first

network (N1) ([0029], line 2, data server connected to client);

the data storage device (100) having and a data transferring unit (130) ([0062], line 14, module that forwards client requests to external storage),

the storing means (12, 22) having functions of performing, based on an instruction of an operator, a data deposition process of uploading data to be deposited to the data storage device (100) via the first network (N1) ([0061], line 3, write request sent to data server) and

a data withdrawal process of downloading data to be withdrawn from the data storage device (100) via the first network (N1) ([0061], line 5, read request sent to data server),

wherein, in performing the data deposition process, the data to be deposited are uploaded to data storage unit ([0061], line 3, write request sent to data server);

the data transferring unit (130) having functions of performing a data stocking process, whereby, when data to be deposited have been uploaded to the data storage unit (120) by the data deposition process, the data to be deposited are forwarded to an external storage site (210, 220, 230), accessible from the data

storage device (100) via a second network (N2) ([0062], line 14, data server forwards requests and receives data from external data store for clients),

the data to be deposited stored in the second data storage unit (120) are deleted ([0061], line 4, write requests are forwarded to external storage, not saved at data server), and

management information, including information specifying the external storage site (210, 220, 230), is sent to a terminal device (10, 20) that is executing the data deposition process and a data delivery process ([0063], line 9, file location information sent to client to find requested data),

whereby, when a request to download data to be withdrawn from the second data storage unit (120) is made by the data withdrawal process, management information is received from a terminal device (10, 20) that is executing the data withdrawal process ([0062], lines 3-5, token is received from client, identifying the client and the data requested, and used to locate and read data),

data stored in an external storage site (210, 220, 230) specified by the received management information are forwarded to the data storage unit (120) ([0062], line 14, file responses received by data server), and

the data in the data storage unit (120) are deleted upon being downloaded ([0061], line 5, data files in read requests are forwarded to client, not saved), and

the storing means (12, 22) furthermore having functions of executing a process of storing, as an execution result of the data deposition process, management information sent from the data storage device (100) as "management information concerning a data to be deposited" into the removable storage medium (11, 21) ([0066], line 1, token information are stored anywhere on the client, hard disk or removable storage) and

a process of sending, in executing the data withdrawal process, "management information concerning a data to be withdrawn" that had been stored in the removable storage medium (11, 21) to the data storage device (100) ([0066], line 1, sending client request with token containing data management information to data server).

Vange does not teach a first and second storage unit on the data storage device. Iwami teaches a first and second storage unit on the data storage device ([0011], lines 3-5, system having local storage unit and a unit coupled to external central storage).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine Vange with the teachings of Iwami, a first and second

storage unit on the data storage device, to increase the storage capabilities of a system beyond that of the local storage.

The combination of Vange and Iwami does not teach choosing between a first and second storage unit in accordance with the operator's selection. Campbell teaches choosing between a first and second storage unit in accordance with the operator's selection ([0034], line 2, members can choose between local storage or shared external storage).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine Vange and Iwami with the teachings of Campbell, choosing between a first and second storage unit in accordance with the operator's selection, to provide the user with choice managing the distribution of data across local and external storage.

As per claim 5, the combination of Vange, Iwami, and Campbell teaches a process of deleting management information used in the completed process from inside the data storage device (100) (Vange; [0062], lines 3-5, management information of token not stored after use).

As per claim 6, the combination of Vange, Iwami, and Campbell teaches an e-mail indicating, to a terminal device (10, 20), completion of a storage of data to be deposited (Vange; [0061], acknowledgment upon write of storage).



As per claim 7, the combination of Vange, Iwami, and Campbell teaches designating an external storage site (210, 220, 230) in performing the data deposition process by uploading data to be deposited to the second data storage unit (120) (Vange; [0061], line 4, write requests contain the data to be stored and are first “uploaded” to the data server), and the data transferring unit (130) forwards the data to be deposited to the designated external storage site (Vange; [0061], line 4, write requests are then forwarded to external storage).

As per claim 8, the combination of Vange, Iwami, and Campbell teaches as information for specifying an external storage site (210, 220, 230), a URL of the external storage site is used (Vange; [0063], line 9, file location would include URL of external storage site).

As per claim 12, the combination of Vange, Iwami, and Campbell teaches: a plurality of data storage devices (310, 320) are provided (Vange; [0063], line 11, more than one data server, i.e. front-end) and data, stored in any of predetermined storage sites (410, 420, 430), are enabled to be downloaded to a terminal device (N3, N4) via any of the data storage devices (310, 320) (Vange; [0064], line 5, multiple data stores all assessable by clients).

As per claim 14, the combination of Vange, Iwami, and Campbell teaches a LAN used as the first network (N1) (Vange; [0019], line 11, LAN systems) and the internet is used as the second network (N2) (Vange; [0022], line 5, the web).

As per claim 15, the substance of the claimed invention is identical to that of claim 1. Accordingly, this claim is rejected under the same rationale.

6. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vange, Iwami, and Campbell in further view of Johnston Jr. et al. (US Patent No. 5,598, 524) [hereinafter "Johnston Jr."].

As per claim 2, the combination of Vange, Iwami, and Campbell teaches claim 1.

The combination of Vange, Iwami, and Campbell does not teach a list of data, presenting the list, selected from the list by a selection operation by an operator. Johnston, Jr. teaches a list of data, presenting the list, selected from the list by a selection operation by an operator (Col. 1, line 51, a folder contains a list of files which are presented to the user and which can be selected from).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine Vange, Iwami, and Campbell with the teachings of Johnston, Jr., a list of data, presenting the list, selected from the list by a selection operation by an operator, to provide end users a selection as to the available content in the external storage site.

As per claim 3, the combination of Vange, Iwami, and Campbell teaches claim 1. The combination of Vange, Iwami, and Campbell does not teach folders (F1, F2, and F3) on a display screen of a terminal device (10, 20) and an instruction operation, provided from an operator, for moving data to a folder or from a folder. Johnston, Jr. teaches folders (F1, F2, and F3) on a display screen of a terminal device (10, 20) (Col. 1, line 51, a folder is displayed on screen, see Fig. 1A) and an instruction operation, provided from an operator, for moving data to a folder or from a folder (Col. 3, line 49, drag and drop operations).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine Vange, Iwami, and Campbell with the teachings of Johnston, Jr., folders (F1, F2, and F3) on a display screen of a terminal device (10, 20) and an instruction operation, provided from an operator, for moving data to a folder or from a folder, for moving data to a folder or from a folder (Col. 3, line 49, drag and drop operations), to provide a visual representation of the data transfers which is more intuitive to the end user.

As per claim 4, the combination of Vange, Iwami, Campbell, and Johnston, Jr. teaches the data transferring unit (130) (Vange; [0062], line 14, data server forwards requests and receives data from external data store for clients), in performing the data delivery process (Vange; [0061], line 5, data files in read requests are forwarded to client), stores data to be withdrawn, which had been forwarded from an external storage site

(Vange; [0061], line 5, data files in read requests are forwarded from external storage), into a folder (Johnston, Jr.; Col. 1, line 51, a folders store files), corresponding to the second data storage unit (Vange; [0062], line 14, module that forwards client requests to external storage), then download the data site (Vange; [0061], line 5, read requests means download).

7. Claims 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vange, Iwami, and Campbell in further view of Yano et al. (US PGPUB No. 2002/0138504) [hereinafter "Yano"].

As per claim 9, the combination of Vange, Iwami, and Campbell teaches claim 1.

The combination of Vange, Iwami, and Campbell does not teach a process of dividing data (D) to be deposited into a plurality of partition files (D1, D2, D3) and forwarding the respective individual partition files to different storage sites (L1, L2, L3) and management information/a process specify the plurality of storage sites and restores an original data (D) by unifying the respective partition files (D1, D2, D3). Yano teaches a process of dividing data (D) to be deposited into a plurality of partition files (D1, D2, D3) and forwarding the respective individual partition files to different storage sites (L1, L2, L3) ([0008], line 1, divided data stored to multiple data servers) and management information/a process specify the plurality of storage sites and restores an original data (D) by unifying the respective partition files (D1, D2, D3) ([0019], line 23, data depository information used to reconstruct a file).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine Vange, Iwami, and Campbell with the teachings of Yano, a process of dividing data (D) to be deposited into a plurality of partition files (D1, D2, D3) and forwarding the respective individual partition files to different storage sites (L1, L2, L3) and management information/a process specify the plurality of storage sites and restores an original data (D) by unifying the respective partition files (D1, D2, D3), to allow files to be distributed across many sites allowing for more efficient storage.

As per claim 10, the combination of Vange, Iwami, Campbell, and Yano teaches: the data transferring unit (130) (Vange; [0062], line 14, data server forwards requests and receives data from external data store for clients), in performing the data stocking process (Vange; [0061], line 4, write requests are forwarded to external storage), performs a process of preparing management information including information indicating a dividing method that is carried out (Yano; [0019], line 23, data depository information), and, in performing the data delivery process (Vange; [0062], line 14, data server forwards requests and receives data from external data store for clients), executes a unifying process that is in accordance with a method included in the management information (Yano; [0028], line 1, integrating the file).

As per claim 11, the combination of Vange, Iwami, and Campbell teaches depositing process ([0061], line 4, write requests are forwarded to external storage) and

management information ([0062], lines 3-5, tokens contain metadata necessary to read/write files to external storage site).

The combination of Vange, Iwami, and Campbell does not teach an encryption process. Yano teaches an encryption process ([0007], line 4, encryption and decryption).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine Vange, Iwami, and Campbell with the teachings of Yano, an encryption process, to ensure data stored to the external storage site is not compromised.

As per claim 13, the combination of Vange, Iwami, and Campbell teaches the storing means (12, 22) realized by program installed in a computer making up the terminal device (10, 20) (Vange; [0012], line 5, client applications).

The combination of Vange, Iwami, and Campbell does not teach an IC card used as the removable storage medium (11, 12). Yano teaches an IC card used as the removable storage medium (11, 12) ([0009], line 1, IC card as portable recording medium).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine Vange, Iwami, and Campbell with the teachings of Yano, a list of data, an IC card used as the removable storage medium (11, 12), to provide another means of storing data from the external storage site.

**Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hirose (US Patent No. 6,205,580) describes file division and saving with IC cards.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER SHAW whose telephone number is (571)270-7179. The examiner can normally be reached on Mon-Fri 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Avellino can be reached on 571-272-3905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Joseph E. Avellino/

Supervisory Patent Examiner, Art Unit 2458